

FOUR NEW TENUIPALPIDS FROM PUERTO RICO WITH NOTES
ON SOME PREVIOUSLY DESCRIBED SPECIES
(ACARINA: TENUIPALPIDAE)

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In his preliminary survey of the plant mites of Puerto Rico, Cromroy (1958) recorded 4 species of *Brevipalpus* (*B. longisetosus* Baker 1948 should have been included in the list, making 5 species) and 2 species of *Tenuipalpus* as occurring in Puerto Rico. This paper records 4 additional *Brevipalpus* and 7 additional *Tenuipalpus* that occur there.

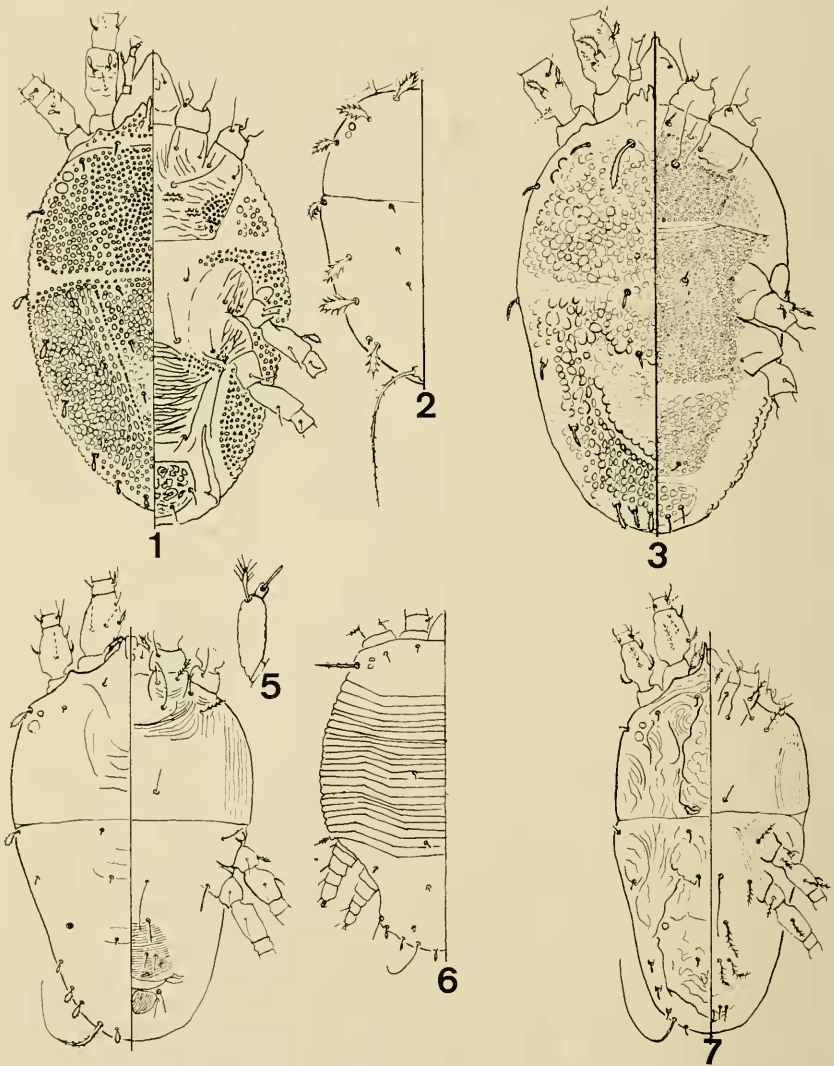
Three of the *Brevipalpus* found in Puerto Rico (*phoenicis* (Geij.), *californicus* (Banks), and *obovatus* Donn.) occur round the world chiefly in the tropics; a fourth (*trinidadensis* Baker) seems to be limited to the Caribbean area and Mexico and *mori* DeL.? and *longisetosus* Baker also occur in Mexico. The remaining 3 species may be endemic. With *Tenuipalpus*, 5 species (*bakeri* McGregor, *anoplus* Baker, *uvae* DeL., *gumbolimbonis* DeL., and *tabebuiae* DeL.) also occur in either Florida or Mexico or both places, and *frondosus* Cromroy has been found in Jamaica, leaving 3 species which may be endemic.

Following is a list of the described species collected, the locality, and the host plants; the collecting covered such a short period (Aug. 23–Sept. 5, 1963) that date of collection is omitted. The species listed by Cromroy (1958) and also collected by the writer are indicated by an asterisk and only new host records are included.

Brevipalpus trinidadensis Baker: Nymphs fitting the characters given for this stage were collected at Santurce on *Bidens pilosa* and at Rio Piedras on *Clerodendron* sp. Characters for separating the adult of this species from *californicus* are not known. Adults which appear to be this species or perhaps *californicus* were collected at Santurce on *Bidens pilosa*, *Ipomoea polyanthis*, *Poinsettia geniculata*, *Boerhavia erecta*, *Tridax procumbens*, *Sida carpinifoliae*, and *Vernonia cinerea*; at Rio Piedras on *Clerodendron* sp., *Lantana involucrata*, and at Coamo on *Banara spicata*. Nymphs with the characters given for *trinidadensis* were collected at Rio Piedras from *Nephrolepis biserrata*, but the adults taken with these nymphs have the characters of *lilium* Baker. Nymphs were taken at Santurce on *Jasminum azoricum* with the characters of *californicus* except that all the dorso-lateral setae are about as long as the last 4 pairs of dorsolateral hysterosomals. It seems obvious that rearing studies are needed here to determine the amount of variation within these "species" before satisfactory identifications can be made.

**Brevipalpus obovatus* Donn.: Santurce, nymphs and adults on *Bidens pilosa*.

**Brevipalpus phoenicis* (Geij.): Santurce, on *Ipomoea polyanthis*, *I. pes-capra*, *Bauhinia* sp., *Cocos nucifera*, *Malvaviscus* sp., *Pseudelephantopus spicatus*; Juana-dias, on *Citherexylon fruticosum*; Salinas, on *Cordia sebestina*; Cayey Mt., on *Inga vera*.



Figs. 1 & 2. *Brevipalpus bucerasae*, n. sp. Fig. 1, female; fig. 2, nymph.
 Fig. 3. *Brevipalpus absens*, n. sp., female.
 Figs. 4-6. *Tenuipalpus smarubae*, n. sp. Fig. 4, female; fig. 5, palpus; fig. 6, nymph.
 Fig. 7. *Tenuipalpus panici*, n. sp., female.

Brevipalpus mori DeL.?: Coamo, 1 adult on *Boureria succulenta*. Nymphs are needed to make a positive identification of this species.

Tenuipalpus anoplus Baker: Rio Piedras, on *Swietenia mahagoni*.

Tenuipalpus tabebuiae DeL.: San Juan and Santurce, on *Tabebuia* spp.

**Tenuipalpus frondosus* Cromroy: El Yunque, on *Alsophila borinquensis*; the nymphs, not previously known, resemble closely the adult female.

Tenuipalpus bakeri McGregor: El Yunque, on *Psychotria bertierana*.

Tenuipalpus gumbolimbonis DeL.: Santurce, on *Hura crepitans*.

Tenuipalpus uvae DeL.: Ponce, on *Spondias dulcis* and *Guazuma ulmifolia*. On *Spondias*, the mites occurred in countless thousands.

Except as noted, the descriptions and drawings are of type females. All measurements are in microns, and length of dorsum includes the rostral shield.

***Brevipalpus buccerasae*, new species**

(Figs. 1 and 2)¹

Brevipalpus buccerasae appears to be closely related to *B. combreti* DeL. in having 6 pairs of dorsolateral hysterosomal setae, 1 seta and a sensory rod at end of palpus, 1 sensory rod on tarsus II of female, and in other characters; it differs chiefly in having the dorsum with areolae of more uniform size and tarsi I and II each with only 4 setae. The nymph differs in having the last pair of dorsolateral hysterosomal setae flagelliform. The male is unknown.

FEMALE: Dorsum 241 long, 157 wide with setae and markings as shown in Fig. 1. Palpus 4-segmented, the last segment bearing a seta and sensory rod; sensory rod of tarsus I about 18 long, of tarsus II about 15 long, each with an overlying setiform seta; all tarsal claws with strong hooks; tibiae I and II each with only 4 setae (no seta on posterior face).

NYPH: Chaetotaxy of dorsum as shown in Fig. 2; dorsolateral propodosomal seta 125 long, last dorsolateral hysterosomal seta about 100 long.

Holotype: Female, Juanadias, P. R., 28 August 1963 (D. De Leon), on *Bucida bucceras*. *Paratypes*: 5 females, 2 nymphs collected with holotype. The mites were not on the leaves but at the junction of petiole and twig.

***Brevipalpus absens*, new species**

(Fig. 3)

Brevipalpus absens is distinct from other mites in the group with 5 pairs of dorsolateral hysterosomals, 1 seta on end of palpus, and 1 sensory rod on tarsus II in several unusual ways: The 3 posterior dorsolateral hysterosomals are grouped together, the pair of posterior medioventral podosomal setae is missing, the palpus appears to be 2-segmented and lacks a sensory rod, and genua III and IV each bear a dorsal seta in addition to the usual ventral seta. The male and immature stages are unknown.

FEMALE: Dorsum 253 long, 153 wide; arrangement of setae and markings as shown in Fig. 3. Sensory rod of tarsus II about 5 long, with an overlying setiform seta; all tarsal claws with strong hooks. Dorsolateral propodosomal seta 1 25 long.

¹ A hysterosomal seta was omitted from Figures 1 and 2, this is a minute seta just anterior to the last seta.

Holotype: Female, El Yunque, P. R., 26 August 1963 (D. De Leon), on *Miconia foveolata*.

***Tenuipalpus simarubae*, new species**

(Figs. 4-6)

Tenuipalpus simarubae resembles *T. punicae* Pritchard and Baker differing from that species chiefly by having the dorsum practically smooth, genua I and II each with 3 setae (2 on the anterior face), tibiae I and II each with 5 setae, and palp segment 2 with a somewhat palmate seta (Fig. 5). The male is unknown.

FEMALE: Dorsum 293 long, 182 wide; body with chaetotaxy and markings as shown in Fig. 4. Palpus 3-segmented; tarsi I and II each with a posterodistal sensory rod about 7 long and each with an overlying narrow-ovate seta.

NYMPH: The chaetotaxy of the nymph is shown in Fig. 6.

Holotype: Female, N. of Coamo, P. R., 28 August 1963 (D. De Leon), on *Bursera simaruba*. *Paratypes*: 2 nymphs collected with female.

***Tenuipalpus panici*, new species**

(Fig. 7)

Tenuipalpus panici resembles *T. heveae* Baker in having the opisthosoma with medioventral and genital setae plumose, but differs from it chiefly in genua I and II each having 3 setae (2 on the anterior face) and coxa III with a seta on anterior face. The male and nymph are unknown.

FEMALE: Dorsum 284 long, 146 wide; body red and black with chaetotaxy and markings as shown in Fig. 7. Palpus 3-segmented, middle segment much wider near middle than at either end, segment 3 with a single seta about 7 long at distal end; tarsi I and II each with a posterodistal rod-shaped seta about 6 long and each with an overlying setiform seta.

Holotype: Female, S. of Baranquetas, P. R. 28 August 1963 (D. De Leon), on *Panicum maximum*. *Paratype*: 1 female collected with holotype.

Types and paratypes of the new species are in the author's collection.

ACKNOWLEDGMENT

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LITERATURE CITED

- Cromroy, H. L.** 1958. A preliminary survey of the plant mites of Puerto Rico. *Jour. Agri. Univ. Puerto Rico* 52 (2): 39-144.
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